

## REMARKS

Prior to this amendment, claims 1-45 were pending, with claims 30-45 being withdrawn from consideration by the Examiner. This amendment cancels claims 30-45 and adds new claims 46 and 47. Claims 1-29 and 46-47 are now pending.

### The Amendments to the Claims

Claim 1 has been amended to state that the form is made of a thermosetting material. This amendment is supported at page 3, lines 24-25 of the specification as filed. Claim 1 has been further amended to state that the pigment is other than carbon particles. This amendment is supported at page 2, lines 9-12 of the specification as filed.

Claim 2 has been amended at line 1 to delete "cold".

Claim 7 has been amended at line 1 to clarify that said pigment or dye has the specified mho hardness. This amendment is supported at page 12, lines 11-13 of the specification as filed.

Claim 29 has been amended at lines 3 and 4 to clarify that the pigment or dye has the specified mho hardness and that the form has the specified Izod impact score and resilience. This amendment is supported at page 12, lines 11-13, and page 13, lines 15 and 26 of the specification as filed. Claim 29 has also been amended at line 3 to delete "cold" and specify a temperature range for the molding process. This amendment is supported at page 7, line 3 of the specification as filed.

Please cancel claims 30-45 without prejudice.

New claim 46 specifies that the form is hollow. Claim 46 is supported at page 7, line 14 of the specification as filed.

New claim 47 specifies that the form is a mannequin. Claim 47 is supported at page 1, line 1 of the specification as filed.

#### The 35 U.S.C. 112 Rejections

Claims 2, 5, 6, 7 and 29 were rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

It was stated that "Claim 2 is indefinite in reciting 'cold rotational molding at about 200 °F' because any molding at 200 °F cannot be called 'cold molding'." Claim 2 has been amended at line 1 to delete "cold".

Claim 5 appears to have been rejected because of the use of the term "substantially uniform texture". Applicants respectfully disagree that the use of the term 'substantially uniform' with respect to the texture of the form would fail to reasonably appraise one of ordinary skill in the art of the scope of the invention. Use of the term "uniform texture" is intended to convey that the form material is not lumpy (page 13, lines 2-3 of the specification as filed).

It was stated that "Claim 6 is indefinite because 'substantially flat' fails to specify how much flat or how much rough." Applicants respectfully disagree that the use of the term "substantially flat" with respect to a portion of a gel profile would fail to reasonably apprise one of ordinary skill in the art of the scope of the invention. Furthermore, Figures 10 and 11 illustrate desirable gel profiles.

It was stated that "Claim 7 is indefinite since it is not clear if the limitation of hardness is ascribed to the 'form' or 'pigment or dye'". Claim 7 has been

amended to specify that the limitation of hardness is ascribed to the pigment or dye. A similar rejection was made of claim 29. Claim 29 has been amended to specify that the limitation of hardness is ascribed to the pigment or dye.

In view of all the foregoing, Applicants respectfully request reconsideration and withdrawal of the rejections of claims 2, 5, 6, 7 and 29.

#### The 35 U.S.C. 102(b) Rejections

##### Arai et al.

Claim 1 was rejected under 35 U.S.C. 102(b) as being anticipated by Arai et al (US 4,638,016). The Office Action states:

Arai describes process for producing elastic polyurethane. Polyurethanes are prepared from various polyols and polyisocyanates (col. 4, line 37 to col. 5, line 17). Pigments and dyestuffs are used as additives. Claim 1 therefore lacks novelty.

US 4,638,016 relates to a process for producing elastic polyurethane. At col. 1, lines 13-14, it is stated that the invention relates to a process for producing an elastomer for use as a sole. Arai et al. does not appear to disclose molded display forms or mannequins. At col. 5, line 13 Arai et al. mention that a variety of pigments and dyestuffs may be used for coloring the products. However, the uniformity of coloring of the polyurethane does not appear to be addressed.

Amended claim 1 of the present invention relates to a molded retail display form made of a thermosetting elastomeric material having a dye or pigment mixed therein, said form having a uniform color throughout the thickness of said material. As defined in the specification, retail display forms include mannequins as well as frames (e.g. for mirrors and pictures), urns, fixtures, furniture, display props, and garden furniture. To anticipate a claim for a patent, a single prior source must contain all its elements. Since Arai et al. does not appear to disclose molded retail display forms made of an elastomeric material

having uniform color throughout the thickness of the material, Arai et al. does not anticipate claim 1. Applicants respectfully request reconsideration and withdrawal of the rejection of claim 1.

Graefe

Claims 1-3, 5, and 9-11 were rejected under 35 U.S.C. 102(b) as being anticipated by Graefe (US 5,002,475). The Office Action states:

Graefe discloses reaction injection molding apparatus which is used to mold a shaped article from a polymerizable flowable resin-forming composition (abstract). One such composition has a thermosetting resin such as a polyurethane elastomer of viscosity from 50 to 10,000 centipoises (col. 1, lines 49-59; col. 4, lines 41-44; col. 10, lines 24-25). Disclosure of Graefe, summarized above proves that above claims lack novelty.

Graefe relates to a reaction injection molding apparatus. Graefe does not appear to disclose molded display forms or mannequins.

Amended claim 1 of the present invention relates to a molded retail display form made of a thermosetting elastomeric material having a dye or pigment mixed therein, said form having a uniform color throughout the thickness of said material. To anticipate a claim for a patent, a single prior source must contain all its elements. Since Graefe does not appear to disclose molded retail display forms made of an elastomeric material having uniform color throughout the thickness of the material, Graefe does not anticipate claim 1. Applicants respectfully request reconsideration and withdrawal of the rejection of claim 1. Furthermore, since claims 2-3, 5, and 9-11 depend from claim 1 and contain all the limitations of claim 1, Applicants respectfully request reconsideration and withdrawal of the rejection of claims 2-3, 5, and 9-11.

The 35 U.S.C. 103(a) Rejections

Claims 1-29 were rejected under 35 U.S.C. 103(a) as being unpatentable over Graefe in view of Kennedy (US 6,290,614) and Hirai et al. (US 4,367,307).

The Office Action states:

Disclosure of Graefe is summarized earlier.

Graefe does not mention specifically organic pigment or dye (of instant claim 8) and colors (of instant claims 25-28).

Kennedy used white pigment with polyurethane (col. 2, lines 42-51).

Hirai uses brown pigment with polyurethane elastomer (col. 13, line 45-46).

Therefore it would have been obvious to use in the composition of Graefe, (a) white pigment (of Kennedy) or (b) brown pigment (of Hirai) or any one or more of other pigments to impart specific color to the molded form or article.

It is noted that prior art is silent about certain limitations of some of the above claims.

Since Graefe teaches mixing of colorants and other ingredients, it is reasonable to infer that mixing is done uniformly throughout the mass. It is also obvious to use a pigment or dye of a certain hardness to optimize the appearance and texture of surface of the molded article. It is also obvious (a) to adjust abrasion resistance of molded article so that any protruding material or flash can be removed by grinding with a sand paper (instant claim 12), (b) to adjust the composition to achieve a certain impact strength (instant claim 13) and (c) to adjust certain physical properties (of instant claims 14-23).

Kennedy relates to a golf ball which includes one or more fast-chemical-reaction-produced components and a process for making such a golf ball. The fast-chemical reaction-produced component may include a reaction injection molded polyurethane material.

Hirai relates to a polyurethane composition having good light resistance.

In order to establish a *prima facie* case of obviousness, there must be some suggestion or motivation to modify or combine the references cited. The Graefe reference relates to a reaction molding apparatus, the Kennedy reference to a process for making a golf ball including a reaction molded component, and the Hirai reference to a polyurethane composition. None of the three references cited appear to relate to retail display forms such as mannequins. Therefore, there does not appear to be any suggestion to combine the references to arrive at the molded retail display form of claim 1.

In addition, the combination of references cited would neither teach nor suggest the present invention to one skilled in the art. The enclosed declaration of James D. Barber states that dispersion of pigments is more difficult for larger volumes of thermoset material. Methods for producing uniformly colored small articles such as golf balls will not necessarily produce uniformly colored larger articles such as retail display forms. Furthermore, since the Graefe and Kennedy references teach different molding techniques for making thermoset parts, the references teach away from their combination. In particular, the reaction molding technique of Graefe requires application of pressure to the mold contents when the mold contents have obtained a level of viscosity which is sufficient to prevent their being forced through the mold vents (col. 4, lines 56-59). The molding technique describes by Kennedy at col. 7 line 60 through col. 8, line 51 does not appear to describe such application of pressure.

Furthermore, the prior art references when combined do not teach or suggest several of the claim limitations. For example, none of the references appear to teach or suggest the gel profile required for successful molding of retail display forms, as does claim 6. In addition, none of the references appear to teach or suggest that the hardness of any pigment used is an important parameter, much less suggest the limitations on pigment hardness of claims 7 and 29. Since none of the references specifically relate to forms for retail

display, they do not teach or suggest physical properties of the forms which are specified in claims 13-16, 18-22, and 29. The enclosed declaration of James D. Barber presents facts showing the difficulty of obtaining uniformly colored display forms having sufficient strength without excessive brittleness. Thus no *prima facie* case of obviousness has been made out.

In addition, none of the references either singly or in combination appear to address the long-standing problem which the current invention solves: chipping or scratching of paint from thermoset retail display forms which reveals an underlying color which differs from the surface color. The enclosed declaration of James D. Barber presents facts showing that present invention satisfies a long-felt need for retail display forms made of thermoset materials, which, if scratched, chipped, or broken, typically display an underlying color the same as the surface color.

In view of all the foregoing, Applicants respectfully request reconsideration and withdrawal of the rejections of claims 1 and claims 2-29, which depend from and incorporate all the limitations of claim 1.

#### The New Claims

New claim 46 contains the limitation that the form of claim 1 is hollow. None of the references cited appear to teach or suggest hollow molded articles. Furthermore, claim 46 depends from claim 1 and incorporates all the limitations of amended claim 1. The rejections of claim 1 are believed to have been overcome. Therefore, claim 46 is believed to be patentable over the art cited.

New claim 47 contains the limitation that the form of claim 1 is a mannequin. None of the references cited appear to specifically relate to mannequins. Furthermore, claim 47 depends from claim 1 and incorporates all the limitations of amended claim 1. The rejections of claim 1 are believed to

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have been overcome. Therefore, claim 47 is believed to be patentable over the art cited.

### **SUMMARY**

All claims being in condition for allowance, passage to issue is respectfully requested.

It is believed that no fee is due with this submission. If this is incorrect, please deduct any required fee, including any fee required for extension of time, from Deposit Account 07-1969.

Respectfully submitted,



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